Claims:

1. Holding device for the arrangement of at least one optical component (3) in front of a laser light source (5) of a laser unit (1), comprising a first holding part (8) to which at least one optical component (3) is attached, characterized in that the holding device (2) furthermore comprises a second holding part (9) which is attached to one part of the laser unit (1), the first holding part (8) being attached to the second holding part (9).

2. Holding device as claimed in claim 1, wherein one of the holding parts (8, 9) has a connecting section which is surrounded at least in sections by the receiving section of the other of the holding parts (8, 9).

3. Holding device as claimed in claim 2, wherein the connecting section has an essentially cylindrical outside contour (10) and wherein the receiving section has an essentially hollow cylindrical inside contour (11), the connecting section being placed at least partially in the receiving section.

4. Holding device as claimed in claim 3, wherein there is an annular intermediate space (12) between the outside contour (10) and the inside contour (11).

5. Holding device as claimed in claim 4, wherein the intermediate space (12) has a radial dimension of 10 microns to 200 microns, preferably of roughly 50 microns.

6. Holding device as claimed in one of claims 4 or 5, wherein the intermediate space (12) is at least partially filled with cement or solder.

7. Holding device as claimed in one of claims 1 to 6, wherein an intermediate layer is inserted between the part of the laser unit (1) to which the second holding part (9) is attached,

and the corresponding contact surface of the second holding part (9).

8. Arrangement with a holding device as claimed in one of claims 1 to 7, wherein the laser unit (1) as the laser light source (5) comprises a laser diode bar or a stack of laser diode bars.

9. Arrangement as claimed in claim 8, wherein the part to which the second holding part (9) is attached is a heat sink (6).

10. Arrangement as claimed in one of claims 8 or 9, wherein the first optical component (3) is made as a fast-axis collimation lens.

11. Arrangement as claimed in one of claims 8 to 10, wherein the second optical component (4) which is made especially as a slow-axis collimation lens is held on the laser unit (1) furthermore via lateral support elements (7).

12. Process for producing an arrangement as claimed in one of claims 8 to 11, wherein in one process step the first holding part (8) is joined to the first optical component (3), wherein in a further process step the second holding part (9) is joined to one part of the laser unit (1), and wherein in a process step which follows these two process steps the first holding part (8) is connected to the second holding part (9).

13. Process as claimed in claim 12, wherein the two holding parts (8, 9) are joined by the hollow cylindrical inside contour (11) being applied to the cylindrical outside contour (10) and being cemented or soldered to it.

14. Process as claimed in claim 13, wherein after application of the inside contour (11) to the outside contour (10) the first optical component (3) is positioned in front of the laser light source (5), and wherein in a subsequent process step the cement or solder which joins the outside

contour (10) and the inside contour (11) is cured.

15. Process as claimed in claim 14, wherein the cement is cured by UV irradiation.